

CLAIMS

1. A detector for detecting the presence of a memory tag, the detector  
5 comprising a radio frequency source operable to generate a radio frequency  
signal and a detector resonant circuit part connected to the radio frequency  
source, the detector resonant circuit part comprising an antenna,  
the detector further comprising a power monitor responsive to the power  
of a reflected signal returned from the detector resonant circuit part,  
10 the power monitor being operable to generate an output in response to  
the power of the reflected signal,  
wherein a decrease in the power of the reflected signal indicates the  
presence of a tag in the vicinity of the antenna.
- 15 2. A detector according to claim 1 wherein the power monitor is operable  
to generate an output when the power level falls below a threshold.
3. A detector according to claim 1 wherein the power monitor is operable  
to generate an output indicating the power of the reflected signal.
- 20 4. A detector according to claims 1 comprising a position processor, the  
position processor being operable to receive position information indicating the  
position of the detector and an output from the power monitor, the position  
monitor being operable to store position information relating to at least one  
25 position and the power monitor output at that position, and generate a  
recommended position output depending on the stored position information and  
power monitor output information.

5. A detector for detecting a memory tag, the detector comprising a radio frequency source operable to generate a radio frequency signal,  
a detector resonant circuit part connected to the radio frequency source,  
a power monitor responsive to the power of a reflected signal returned  
5 from the detector resonant circuit part, the power monitor being operable to generate an output in response to the power of the reflected signal, and  
a position processor operable to receive position information indicating the position of the detector and the output from the power monitor, wherein  
the position monitor is operable to store position information relating to  
10 at least one position and the power monitor output at that position, and generate a recommended position output depending on the stored position information and power monitor output information.
6. A read/write device for reading and/or writing data to a tag, the  
15 read/write device comprising a detector, the detector comprising a radio frequency source operable to generate a radio frequency signal and a detector resonant circuit part connected to the radio frequency source, the detector resonant circuit part comprising an antenna,  
the detector further comprising a power monitor responsive to the power  
20 of a reflected signal returned from the detector resonant circuit part,  
the power monitor being operable to generate an output in response to the power of the reflected signal,  
wherein a decrease in the power of the reflected signal indicates the presence of a tag in the vicinity of the antenna, the read/write device being  
25 operable to read data from and/or write data to the tag in response to the power monitor output.

7. A read/write system comprising a detector and a movable head provided with an antenna, the detector comprising a detector for detecting a memory tag, the detector comprising

a radio frequency source operable to generate a radio frequency signal, a  
5 detector resonant circuit part connected to the radio frequency source,

a power monitor responsive to the power of a reflected signal returned from the detector resonant circuit part, the power monitor being operable to generate an output in response to the power of the reflected signal, and

a position processor operable to receive position information indicating  
10 the position of the detector and the output from the power monitor, wherein the position monitor is operable to store position information relating to at least one position and the power monitor output at that position, and generate a recommended position output depending on the stored position information and power monitor output information,

15 the read/write system being operable to move the movable head and generate position information corresponding to the position of the movable head,

the read/write system further being operable to transmit the position information to the detector, receive a recommended position output from the  
20 detector and move the movable head to a position indicated by the recommended position output.

8. A read/write system according to claim 7 wherein the read/write system is operable to read data from and/or write data to the tag when the movable  
25 head is at the position indicated by the recommended position information.

9. A read/write system according to claim 8 wherein the read/write system comprises a printer, wherein the movable head comprises a print head and

wherein the printer is operable to print on a base medium provided with at least one tag.

10. A read/write system according to claim 7 comprising a plurality of  
5 detectors.

11. A printer operable to print on a base medium provided with at least one memory tag, the printer comprising a detector for detecting the presence of a memory tag, the detector comprising a radio frequency source operable to  
10 generate a radio frequency signal and a detector resonant circuit part connected to the radio frequency source, the detector resonant circuit part comprising an antenna,

the detector further comprising a power monitor responsive to the power of a reflected signal returned from the detector resonant circuit part,

15 the power monitor being operable to generate an output in response to the power of the reflected signal,

wherein a decrease in the power of the reflected signal indicates the presence of a tag in the vicinity of the antenna.

20 12. A printer according to claim 11 wherein the printer is operable to read data from and/or write data to the tag in response to the power monitor output.

13. A printer according to claim 11 having a movable print head, the print head being provided with the antenna, the printer being operable to move the  
25 movable head and generate position information corresponding to the position of the movable head, the printer further being operable to transmit the position information to the detector, receive a recommended position output from the detector and move the movable head to a position indicated by the recommended position output.

14. A printer operable to print on a base medium provided with at least one tag, the printer comprising a detector for detecting the presence of a memory tag,

5 the detector comprising a radio frequency source operable to generate a radio frequency signal and a detector resonant circuit part connected to the radio frequency source, the detector resonant circuit part comprising an antenna,

the detector further comprising a power monitor responsive to the power  
10 of a reflected signal returned from the detector resonant circuit part and operable to generate an output in accordance with the power of the reflected signal,

the printer further comprising a moveable print head, the print head being provided with the antenna, the printer being operable to move the  
15 moveable head and generate position information corresponding to the position of the moveable head,

the detector further comprising a position processor, the position processor being operable to receive the position information and the output from the power monitor, store position information relating to at least one  
20 position and the power monitor output at that position, and to generate a recommended position output,

the printer being operable to move the moveable head to a position indicated by the recommended position output.

25 15. A method for detecting the presence of a tag, comprising transmitting a signal to a resonant circuit part comprising an antenna, monitoring the power of a reflected signal reflected from the resonant circuit part,

wherein a decrease in the power of the reflected signal indicates the presence of a tag in the vicinity of the antenna.

16. A method according to claim 15 further comprising the step of moving a  
5 detector provided with the antenna relative to the tag, storing position information relating to the position of the detector and power information related to the power reflected signal at that position, and generating a recommended position in accordance with the stored information.